



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,765	04/02/2004	Chiaki Hamada	119332	9946
25944	7590	02/21/2007	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			MANCHO, RONNIE M	
			ART UNIT	PAPER NUMBER
			3663	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	02/21/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/815,765	HAMADA ET AL.	
	Examiner	Art Unit	
	Ronnie Mancho	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 February 2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-15 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

Remark.

1. The finality of the office action dated 10/3/06 has been withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 12 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In claim 12, the applicant recites, “a controller that executes a braking force distribution control in which *braking force on the rear wheels is lowered* in comparison with braking force on the front wheels when an operational condition monitored by a sensor among the at least one sensor satisfies a predetermined condition for *starting the braking force distribution control*, wherein:

braking force on the front wheels during execution of the braking force distribution control is increased during execution of the braking force distribution control, but decreased when anti-skid control for either of the wheels is executed or when an operational condition monitored by the sensor satisfies a predetermined condition for terminating the braking force distribution control”.

First, the applicant claims lowering of a braking force. At the same time, the applicant claims “*starting the braking force distribution control*”. It is not clear how a braking force can be lowered when the braking force is still being started.

Secondly, the applicant recites “during execution of the braking force distribution control” twice in the same sentence confusing the scope of the claims. The applicant further recites, “braking force on the front wheels..... is increased during execution of the braking force distribution control”. In contradiction, the applicant recites, “*but decreased* when anti-skid control for either of the wheels is executed”. The claimed “anti-skid control” is also part of the claimed “braking force distribution control”.

The applicant further recites the limitation, “either of the wheels”. It is not clear if applicant is referring to the two front wheels alone, or two back wheels alone, or the two front wheels in comparison to the two back wheels.

The claims are therefore not enabled and thus confusing. One of high skill in the art would not be able to understand and make the invention with the information gleaned from the disclosure.

The rest of the claims are rejected for depending on rejected claims 1 and 12.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Banno et al (US Pub 2002/0024252).

Regarding claim 1, Banno et al (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) disclose a device for controlling braking of a vehicle having front and rear wheels, comprising:

a braking system generating braking forces on the respective wheels, at least one sensor monitoring an operational condition of the vehicle including a detector detecting an amount of a braking action by a driver of the vehicle; and

a controller that executes a braking force distribution control in which braking force on the rear wheels is lowered in comparison with braking force on the front wheels when an operational condition monitored by a sensor among the at least one sensor satisfies a predetermined condition, wherein:

braking force on the front wheels during execution of the braking force distribution control is increased, where a braking force increment on the front wheel is determined based upon an increment of the braking action by the driver detected by the detector; and

when anti-skid control for either of the wheels is executed, the braking force increment on the front wheel is decreased.

Regarding claim 2, Banno et al (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) disclose the device of claim 1, characterized in that braking force on the rear wheels is increased when the anti-skid control is executed.

Regarding claim 3, Banno et al (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) disclose the device of claim 1, characterized in that the braking force increment on the front wheel is decreased until the increment reaches to zero.

Regarding claim 4, Banno et al (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) disclose the device of claim 1, characterized in that the decreasing of the braking force increment on the front wheel is interrupted if the anti-skid control is terminated but the increment does not reach to zero.

Regarding claim 5, Banno et al (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) disclose the device of claim 1, wherein the braking system comprises a hydraulic circuit connected with a master cylinder and braking force generating apparatus including wheel cylinders provided for the respective wheels; and the braking action is reflected in a pressure in the master cylinder, characterized in that the decreasing of the braking force increment is executed by decreasing braking pressures in the front wheel cylinders.

Regarding claim 6, Banno et al (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) disclose the device of claim 2, wherein the hydraulic circuit comprises a hydraulic circuit connected with a master cylinder and braking force generating apparatus including wheel cylinders provided for the respective wheels; the braking action is reflected in a pressure in the master cylinder; and valves selectively allowing fluid communication between the master cylinder and the rear wheel cylinders, characterized in that the increasing of the rear wheel braking force is executed by opening the valves.

Regarding claim 7, Banno et al (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) disclose the device of claim 5, wherein the hydraulic circuit comprises at least a common line supplying at least one of the front wheel cylinders and at least one of the rear wheel cylinders, and at least a pressure regulating valve in the common line regulating a pressure in the common line and selectively fluidly connecting the common line to master cylinder.

Regarding claim 8, Banno et al (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) disclose the device of claim 7, wherein the hydraulic circuit is of cross dual circuit type (sec. 0021).

Regarding claim 9, Banno et al (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) disclose the device of claim 7, wherein the hydraulic circuit is of front-rear dual circuit type (sec. 0021).

Regarding claim 10, Banno et al (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) disclose the device of claim 7, wherein the hydraulic circuit comprises valves selectively allowing fluid communication between the common line and the rear wheel cylinders, characterized in that the increasing of the rear wheel braking force is executed by opening the valves.

Regarding claim 11, Banno et al (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) disclose the device of claim 6, wherein the opening of the valves is executed intermittently.

Regarding claim 12, Banno et al (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) disclose a device for controlling a braking of a vehicle having front and rear wheels comprising:
a braking system generating braking forces on the respective wheels;
at least one sensor monitoring an operational condition of the vehicle including a detector detecting an amount of a braking action by a driver of the vehicle; and
a controller that executes a braking force distribution control in which braking force on the rear wheels is lowered in comparison with braking force on the front wheels when an operational condition monitored by a sensor among the at least one sensor satisfies a predetermined condition for starting the braking force distribution control, wherein:

braking force on the front wheels is increased during execution of the braking force distribution control, but decreased when anti-skid control for either of the wheels is executed or when an operational condition monitored by the sensor satisfies a predetermined condition for terminating the braking force distribution control.

Regarding claim 13, Banno et al (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) disclose the device of claim 12, wherein a rate of decreasing the front wheel braking force when an operational condition monitored by a sensor among the at least one sensor satisfies a predetermined condition for terminating the braking force distribution control is faster than a rate of decreasing the front wheel braking force when anti-skid control for either of the wheels is executed.

Regarding claim 14, Banno et al (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) disclose the device of claim 12, wherein the braking force on the front wheel is decreased until the braking force reaches to braking force requested by the braking action by the driver.

Regarding claim 15, Banno et al (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) disclose the device of claim 12, wherein the increase of the braking force on the rear wheels is restricted during execution of the braking force distribution control but allowed when anti-skid control for either of the wheels is executed or when an operational condition monitored by a sensor among the at least one sensor satisfies a predetermined condition for terminating the braking force distribution control.

1. In claims 1-15, the statements of intended use or field of use, "for controlling", "executing a", "is lowered", "an operational condition monitored", "stratifies a", "is increased", "is determined based upon", "detected by", "is executed", "is decreased", "decreasing of", "is

interrupted", "is reflected", or "detecting" clauses are essentially method limitations or statements of intended or desired use. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference. See *In re Pearson*, 181 USPQ 641; *In re Yanush*, 177 USPQ 705; *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 512 USPQ 235; *In re Otto*, 136 USPQ 458; *Ex parte Masham*, 2 USPQ 2nd 1647.

See MPEP § 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ 2nd 1647 Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. *In re Danly*, 120 USPQ 528, 531

Apparatus claims cover what a device is not what a device does. *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ2d 1525, 1528.

As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

Response to Arguments

2. Applicant's arguments filed 2/1/07 have been fully considered but they are not persuasive.
3. Applicant argues that the final rejection of 10-3-06 is premature because the new 112 rejection was not necessitated by applicant's amendments. The finality of 10-3-06 has been withdrawn.

In the interview, it was noted that the proposed amendment substantially overcomes the 112 rejection. The statement does not imply that all the 112 issues were overcome since the

examiner indicated that upon submission of the amendment the examiner will again review the claims. Thus the 112 rejection drawn "beyond the braking force corresponding to the braking action" has been withdrawn due to the present amendment. However, the amendment reducing the subject matter by cancelling some limitations requires further consideration with reference to the prior art and the status of the 112 rejection.

Applicant further argues that the examiner, during the interview, could not explain how the amendments presented new issues. The examiner notes that the explanation cited above as to why the amendments presented new issues was presented to the applicant, but the applicant said that the amendments were only minor amendments.

The applicant's arguments are drawn to MPEP 2114 issues. That is applicant claims "whereinbraking force.... is increased during execution of". This phrase and the others already cited in the final are drawn to intended use and do not serve to distinguish the structure of the invention from the prior art.

Applicant further argues that the prior art does not disclose "a device for controlling braking of a vehicle having front and rear wheels, wherein braking force on the front wheels during execution of the braking force distribution control is increased, where a braking force increment on the front wheel beyond the braking force corresponding to the braking action is determined based upon an increment of the braking action by the driver detected by the detector".

In response, the examiner disagrees. The prior art disclose the structural components of the claims as recited in the sections (abstract, sec 0010 to 0014, 0021, 0022; figs. 1-5) of the prior art.

The limitation “wherein braking force on the front wheels during execution of the braking force distribution control is increased, where a braking force increment on the front wheel beyond the braking force corresponding to the braking action is determined based upon an increment of the braking action by the driver detected by the detector” is verbose and confusing as rejected under 112 above.

It is not clear what all is meant and encompassed by the claimed “beyond *the braking force corresponding to the braking action*”. One skilled in the art cannot ascertain the measure or limits of the claimed “braking action” in order to determine when one has gone beyond that limit to determine a braking force on the front wheel. The limitation is thus indefinite

In addition, the limitations are method limitations in an apparatus claim as pointed out above in MPEP 2114.

Even if the prior art disclosed only the structural limitations and did not disclose the method limitations, which the examiner is not conceding, it is believed that the structure of the prior art is capable of performing the method limitations argued above.

Applicant will need to overcome the 112 issues in the claims in order to set forth a tangible argument..

The rest of the arguments as an example “Banno fails to provide any disclosure as to how and the extent to which *a greater braking force* is applied to the front wheels or *identify the problems associated with compensating for the braking force of the rear wheel*”, etc are not on point with respect to the limitations in the claims.

It is believed that the prior art anticipates the invention, the rejection thus stands.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Communication

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronnie Mancho whose telephone number is 571-272-6984. The examiner can normally be reached on Mon-Thurs: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronnie Mancho
Examiner
Art Unit 3663

2/20/07

JACK KEITH
SUPERVISORY PATENT EXAMINER